

U.S. Department of Transportation

Research and Special Programs Administration 400 Seventh St., S.W. Washington, D.C. 20590

DOT-E 9063 (SECOND REVISION)

EXPIRATION DATE: September 30, 2002

(FOR RENEWAL, SEE 49 CFR § 107.109)

- 1. <u>GRANTEE</u>: Dyneon LLC/Dyneon, GmbH Oakdale, MN
- 2. PURPOSE AND LIMITATION:
 - a. This exemption authorizes the use of non-DOT specification IMO type 5 portable tanks containing non-flammable compressed gases. This exemption provides no relief from any Hazardous Materials Regulation (HMR) other than as specifically stated herein.
 - b. The safety analyses performed in development of this exemption only considered the hazards and risks associated with transportation in commerce.
- 3. <u>REGULATORY SYSTEM AFFECTED</u>: 49 CFR Parts 106, 107 and 171-180.
- 4. <u>REGULATIONS FROM WHICH EXEMPTED</u>: 49 CFR § 173.315 in that a non-DOT specification portable tank is not authorized, except as specified herein.
- 5. <u>BASIS</u>: This exemption is based on the application of Dyneon LLC/Dyneon, GmbH dated September 27, 2000, submitted in accordance with § 107.109.

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6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Proper Shipping Name/ Hazardous Materials Description	Hazard Class/ Division	Identi- fication Number	Packing Group
Hexafluoropropylene, compressed or Refrigerant gas, R 1216 *	2.2	UN1858	N/A

*And other non-flammable gases specifically identified to and acknowledged in writing by the Office of Hazardous Materials Exemptions and Approvals (OHMEA) prior to the first shipment.

- 7. SAFETY CONTROL MEASURES: Prescribed packaging is a non-DOT specification portable tank, mounted in an ISO frame, designed and constructed in accordance with Westerwalder Eisenwerk drawings CS-710-1a, CS-710-3a and a list of drawings in CS-710, all dated April 22, 1983, and the technical specifications and calculations on file with OHMEA and in conformance with the following:
 - (a) Code Conforms with DOT Specification 51 except that the tanks are not ASME Code stamped and have bottom outlets; IMO Type 5.
 - (b) Insulation None.
 - (c) Water capacity (U.S. Gallons) 4490.
 - (d) Material German carbon steel St E 36; Yield strength 51,475 psi; tensile strength 71,050 psi; equivalent to ASTM A516 Grade 70.

(outside dia.)X(length)X(thick.)

(e) Tank size (inches) 78.74 232.28 0.5748 (min)

Head thickness - 0.6102 Weld joint efficiency - 1.0 Corrosion allowance - 0.0

(f) Design pressure (PSIG) - 250.8

<u>Note</u>: Design pressure means "maximum allowable working pressure (MAWP)" as used in the ASME Code.

(g) Test Pressure, Minimum (PSIG) ~ 377.0

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(h) Openings - One (1), 19.7 inch diameter manhole on the head; one (1), 16.5 inch diameter pressure relief device opening pad on the top and one (1), 14.2 inch diameter liquid phase opening pad and one (1), 10.2 inch diameter vapor phase opening pad on the bottom.

Note: Each bottom outlet valve shall be provided with a shear section that meets the requirements of § 178.337-12.

- (i) Tank surface are (square feet) 422.
- (j) Pressure relief devices one (1), 3.0 inch diameter spring loaded safety relief valve outboard of and in series with one (1), 3.0 inch diameter rupture disc, all set at 275.5 psig. Total relief device capacity is 1,059,300 SCFH.
- (k) G-loadings: Vertical down $\underline{2}$; Vertical up $\underline{2}$; Longitudinal $\underline{2}$; and Transverse $\underline{2}$.
- (1) Maximum gross weight (pounds) 57,320
- (m) Maximum commodity weight (pounds) 41,226
- (n) Tare weight (pounds) 16,094
- (o) Design specific gravity 1.10
- (p) Design temperature range (°F) 14 to 122

8. <u>SPECIAL PROVISIONS:</u>

- a. A person who is not a holder of this exemption who receives a package covered by this exemption may reoffer it for transportation provided no modifications or changes are made to the package and it is reoffered for transportation in conformance with this exemption and the HMR.
- b. A current copy of this exemption must be maintained at each facility where the package is offered or reoffered for transportation.
- c. Each portable tank must be plainly marked on both sides near the middle, in letters at least two inches high on a contrasting background "DOT-E 9063".
- d. Hydrostatic test certificates for each tank must be maintained by the owner or manufacturer at its principal business office and be made available to any representative of the DOT upon request.

- e. No product may be shipped that has venting requirements exceeding 1,059,300 SCFH, or has a specific gravity greater than 1.38. The venting capacity required for each product must be determined by the flow formulas contained in Compressed Gas Association (CGA) pamphlet S-1.2.
- f. A test report documenting a satisfactory ISO prototype test for this tank design must be on file with OHMEA prior to the first shipment.
- g. The tank must be filled in accordance with the provisions of \$ 173.315.
- h. Each tank must be (i) visually inspected prior to each trip to ensure that it has not been damaged on the previous trip; and (ii) retested and reinspected once every five years in accordance with § 173.32 as prescribed for DOT Specification 51 portable tanks.
- i. Portable tanks may not be transported in container-on-flat car (COFC) or trailer-on-flat car (TOFC) service except under conditions approved by the Associate Administrator for Safety, Federal Railroad Administration.
- j. "DOT-E 9063" must be stamped on the metal manufacturer's data plate on the line which reads "U.S. DOT Specification No.".
- 9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight and cargo vessel.
- 10. MODAL REQUIREMENTS: A current copy of this exemption must be carried aboard each cargo vessel used to transport packages covered by this exemption.
- 11. <u>COMPLIANCE</u>: Failure by a person to comply with any of the following may result in suspension or revocation of this exemption and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seg:
 - o All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
 - o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this exemption must receive training on the requirements and conditions of this exemption in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this exemption, including display of its number, when the exemption has expired or is otherwise no longer in effect.

12. REPORTING REQUIREMENTS: The carrier is required to report any incident involving loss of packaging contents or packaging failure to the Associate Administrator for Hazardous Materials Safety (AAHMS) as soon as practicable. (Sections 171.15 and 171.16 apply to any activity undertaken under the authority of this exemption.) In addition, the holder(s) of this exemption must inform the AAHMS, in writing, of any incident involving the package and shipments made under the terms of this exemption.

Issued at Washington, D.C.:

Robert A. McGuire

Associate Administrator for Hazardous Materials Safety OCT 1 7 2000

(DATE)

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration, Department of Transportation, Washington, D.C. 20590. Attention: DHM-31.

The original of this exemption is on file at the above office. Photo reproductions and legible reductions of this exemption are permitted. Any alteration of this exemption is prohibited.

Copies of exemptions may be obtained from the AAHMS, U.S. Department of Transportation, 400 7th Street, Washington, DC 20590-0001, Attention: Records Center, 202-366-5046.

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